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NON-SHRINK TREATMENT OF CELLULOSE FIBER

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Inventor(s): NAKANISHI TOSHIO; others: 02

Applicant(s):: UNITIKA LTD

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EC Classification:

Equivalents: JP2933357B2

Abstract

PURPOSE:To carry out the subject non-shrink treatment free from lowering of strength by impregnating a cellulose fiber with a treatment containing a crosslinking agent such as an N-methylol-based resin, an aldehyde or an epoxy resin in combination with a phosphoric acid amide-based compound and subsequently carrying out crosslinking.

CONSTITUTION:A cellulose fiber is padded using a treatment containing a crosslinking agent, e.g. an N-methylol-based resin (e.g. dimethylol urea), an aldehyde such as formaldehyde, an epoxy resin, a polycarboxylic acid (e.g. maleic acid or phthalic acid), an isocyanate compound or a sulfone compound such as vinyl sulfone in combination with a phosphoric acid amide-based compound, and crosslinking reactions are subsequently carried out, thus imparting the objective excellent non-shrink properties to the above-mentioned fiber without reducing its strength. In addition, amide phosphazene, a phosphoric triamide condensed material, etc., are exemplified as the phosphoric acid amide compound.

1/1 DWPI(C) Derwent

AN - 1992-126188 [16]
XA - C1992-058721
TI - Cellulose fibre shrink resistant finishing, for strength - comprises crosslinker of epoxy resin and phosphoric amide impregnated in fibre and crosslinking
PA - (NIRA) UNITIKA LTD
DC - A28 A87 F06
AB - JP04057972 A
Finishing prepn. comprises impregnating processing soln. using crosslinking agent e.g. N-methylol resin, aldehyde, epoxy resin, polycarboxylic acid, isocyanate, or sulphone-cpd. and phosphoric amide into cellulose fibre and crosslinking. Pref. cellulose fibre is cotton, hemp, rayon, knitted and (non)woven-fabric, and also mixed fibre spinning, union cloth etc. with synthetic fibre e.g. polyester, nylon or acrylic. N-methylol resin is methylol melamine, dimethylol (ethylene) dimethylol propylene or dimethylol dihydroxy ethylene-urea or dimethylol urone. Pref. aldehyde is formaldehyde. Epoxy resin is glycerol polyglycidyl ether or sorbitol polyglycidyl. Polycarboxylic acid is maleic or phthalic-acid. Sulphone cpd. is divinyl or bis-(beta hydroxy ethyl) sulphone. Phosphoric amide cpd. is amidophosphazene or phosphoric triamide condensate.
- USE/ADVANTAGE - Imparting shrink resistance to cellulose fibre without reducing strength. (0/0) (Dwg.0/0)